

#### Federal Occupational Health a component of the US Public Health Service Department of Health and Human Services



# Automated External Defibrillation 7A2s

### What is an Automated External Defibrillator (AED)?

Automated External Defibrillators are specialized medical devices designed to recognize and treat certain lethal heart rhythms in the setting of a cardiac arrest. AEDs deliver an electrical shock to persons in ventricular fibrillation or ventricular tachycardia. AEDs provide auditory and visual prompts to assist first responders in treating a cardiac arrest. AEDs have been shown to decrease mortality when used by trained persons and used in conjunction with cardiopulmonary resuscitation (CPR).

#### Why does a person having a heart attack need an AED?

When a heart attack becomes a full cardiac arrest, the heart most often goes into uncoordinated electric activity called fibrillation. The heart twitches ineffectively and cannot pump blood. The AED delivers electric current to the heart muscle, momentarily stunning the heart, stopping all activity. This gives the heart an opportunity to resume beating effectively.

#### Will an AED always resuscitate someone in cardiac arrest?

The AED treats only a heart that is in ventricular fibrillation or ventricular tachycardia. In other cardiac arrest situations, the heart does not respond to electric current but needs medications and breathing support instead. Also, AEDs are less successful when the victim has been in cardiac arrest for longer than a few minutes, especially if no CPR was provided.

#### Is an AED safe to use?

An AED is safe to use by anyone who has been trained to operate it. The American Heart Association recommends that anyone who lives or works where an AED is available for use by lay rescuers participate in a Heartsaver AED course. AEDs, in fact, are so user-friendly that untrained rescuers can generally succeed in attaching the pads and delivering shocks. Untrained rescuers, however, may not know when to use an AED and they may not use an AED safely, posing some danger of electric shock to themselves and others. Also, untrained rescuers would not know how to respond to the victim when the AED prompts "no shock indicated."

#### Do you need physician oversight for an AED Program?

According to Federal regulations promulgated by the Food and Drug Administration, AEDs are Class III medical devices and are restricted for sale to or on the order of a physician. Utilization of an AED therefore requires medical oversight by a licensed physician.

#### What AED Medical Director services are offered by 704?

FOH has a qualified physician who is a Commissioned Officer in the U.S. Public Health Service and is Board Certified in Occupational and Environmental Medicine and Internal Medicine. As a Federal employee, he can serve as the Medical Director of AED Programs in Federal facilities across the United States. The Medical Director will

oversee the development of your AED Program to ensure that it is appropriate for your agency and is in accordance with American Heart Association Guidelines. In the case of an event, he will review the information, write a report and conference with the employees involved.

#### Who are the AED Program Managers?

FOH's AED Program Specialists are medical professionals with expertise in developing AED Programs. These Program Specialists will assist you in all aspects of your AED Program development. The Program Specialists will work with you and the Medical Director to address the specific needs of your agency and will develop a customized AED Program that fits your agency's unique and specific needs. This begins with initial program development and continues through equipment acquisition and training. These dedicated professionals can assist in problem solving in all areas of the program.

#### What services does 70H provide regarding AEDs?

FOH can develop and provide a comprehensive package of AED services to your agency. This includes the development of protocols customized to your site and your specific needs, identification of equipment needs, the purchase of equipment and training for first responders. Your AED Program will take into consideration the geographic distribution of locations to be served, the specific AED equipment that needs to be placed in service, access barriers, recommended numbers and placement locations of AED devices, and persons designated as AED responders.

#### Will 704 help my agency with equipment selection and purchase?

FOH can assist in the selection and purchase of appropriate AED devices, supplies, and other AED-related equipment to meet the unique needs of your site. In addition to the actual AED device, accessories such as additional data cards, back-up batteries, additional defibrillation pads, carrying cases, and other supplies can be ordered conveniently and cost-effectively through FOH. AED training units are also available to enable AED responders to practice first-responder medical emergency scenarios without the cost of a fully functional AED device and without taking an AED unit out of service.

### Does 704 assist in the Critical Incident Stress Management of a cardiac arrest event?

If your agency is enrolled in FOH's Employee Assistance Program, FOH will coordinate a response, free of charge, within 24 to 48 hours of the cardiac arrest event. If your agency is not currently enrolled in an FOH program that includes Critical Incident Stress Management, FOH can provide these services on a fee-for-service basis.

## Does the signing of the Cardiac Arrest Survival Act of 2000 help with my agency's liability issues?

The Cardiac Arrest Survival Act of 2000 provides Good Samaritan protections regarding AEDs. To be covered under this law, your agency must meet certain requirements. In general, Federal employees will be protected from liability if they are appropriately trained and use the AED according to your agency's AED protocols.

### Does 70H address "do not resuscitate" (DNR) issues in their AED protocol development?

The protocol we will develop for your agency will address DNR issues. In addition FOH can address any specific questions you might have regarding AED use on the individuals who have DNR orders.

healthy bodies \* sound minds \* a safe place to work